

AMENDMENTS TO THE DRAWINGS

Please add FIGS. 9-10 with the attached new sheets.

Attachment: New Sheet(s)

REMARKS

Reconsideration and allowance of this application are respectfully requested based on the following analysis

1. Overview of Non-Final Office Action

The abstract is objected to because of alleged informalities: using the term “such as”.

The drawings are objected to under 37 C.F.R. 1.83(a) because of alleged missing claim elements in the drawings.

Claims 1, 4, 8 are rejected under 35 U.S.C. 102(a) as allegedly being anticipated by Nakazawa et al (JPN 2002058167A; hereafter “Nakazawa”).

Claim 9 is rejected under 35 U.S.C. 102(b) as allegedly being anticipated by Ozawa (US 6,323,608).

Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Nakazawa in view of Amano et al (US 6,861,767; hereafter “Amano”).

Claims 5 and 7 are rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Nakazawa in view of Okamura (US 5,528,121).

Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Ozawa in view of Amano.

Claims 12, 13 and 15 are rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Ozawa in view of Okamura.

Claim 6 is rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Nakazawa in view of Matsui (US 5,982,050).

Claim 14 is rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Ozawa in view of Matsui.

Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ozawa in view of Nakazawa.

2. Analysis of Objection to Specification (Abstract)

In this Amendment, Applicant amends the Abstract of the present application. Accordingly, withdrawal of the objection is respectfully requested.

3. Analysis of Drawing Objection

Applicant also amends the drawings by adding new FIGS. 9 and 10 in which the over-voltage preventing device and the over-discharge preventing device recited in claims 6-8 and 14-16 are shown. Applicant also amends the specification so that indication of the new drawings are described in the specification.

Applicant respectfully submits that no new matter is added by the new drawings since the features disclosed by the new drawings are already described at page 15 of the specification, and original claims 6-8 and 14-16.

Accordingly, withdrawal of the drawing objection and entrance of the new drawings are respectfully requested.

4. Prior Art Rejection

Claim 1 is rejected over Nakazawa allegedly disclosing an electric energy storage device (FIG. 1) comprising a capacitor 2 and a battery 1 combined in series.

In this Amendment, Applicant amends claim 1 by incorporating the feature recited in claim 2, that is, “an electric capacity of the secondary battery is about four (4) to 100 times of an electric capacity of the capacitor”.

In rejecting claim 2 in view of Nakazawa and Amano, the Examiner asserts that Amano teaches the claimed electric capacities of the capacitor and the secondary battery in FIG. 1, col. 3 lines 45-46 and col. 5 lines 53-54. Applicant respectfully disagrees.

FIG. 1 of Amano illustrates power supply equipment for a motor vehicles that includes a capacitor 5 and a battery 6. Col. 3 lines 45-46 discloses that a rated voltage of the battery 6 is 36V. Col. 5 lines 53-54 discloses that the capacitor 5 can be charged until the voltage difference ($V_b - V_c$) becomes not more than 2V, where V_b is the voltage of the battery 6 and V_c is that of the capacitor 5.

The above features of Amano’s power supply equipment teaches only the amount of voltages applied to the capacitor 5 and the battery 6, and the voltage difference. However, these the cited parts do not teach or suggest the difference of capacities of the capacitor 5 and the battery 6. Further, considering that the voltage of a capacitor is inverse-proportional to the capacity of the capacitor, the cited part may only suggest that the battery 6 has a smaller capacity than the capacitor 5 because the battery 6 has a greater voltage than the capacitor. This suggestion teaches away from the claimed feature that the capacity of the secondary battery is greater than that of the capacitor.

Moreover, there is no teaching or suggestion in Amano that the capacity of the battery 6 is four (4) to 100 times greater than that of the capacitor 5. While this specific capacity difference range is provided to achieve an unexpected result of increased capacity of the electric energy storage device, improved cycle characteristic and temperature characteristic as described in the specification of the present application, Amano does not teach or suggest this specific range of capacity difference. In addition, while Amano discloses only a rated voltage of the battery 6 (36V), this reference does not teach or suggest the capacity of the battery 6 let alone failing to disclose the capacity of the capacitor 5.

Amano's power supply equipment (FIG. 1) also shows that the capacitor 5 and the battery 6 are connected in parallel, while the capacitor 2 and the battery 1 in Nakazawa are connected in series. Thus, even if the claimed capacity difference is suggested in Amano, one skilled in the art would not have been taught, suggested or motivated to apply the capacity difference suggested in Amano to the storage device of Nakazawa which has a completely difference structure.

Thus, Applicant respectfully submits that the claimed storage device would not have been obvious in view of Nakazawa and Amano.

Claim 2 is canceled.

Claims 3-8 should be allowable at least due to their dependencies on claim 1 and additionally recited elements therein as the deficiencies of Nakazawa and Amano are not remedied by any other references.

With regard to **claim 9**, the Examiner asserts that discharging the capacitor to 0V or less is disclosed in Ozawa (col. 5 lines 50-56) where the ancillary battery 5 (FIG. 3A) is close to 0V.

However, as Applicant amends the claim based on the original disclosure, the claimed method is further distinguished from the cited reference. Support for the claim amendment can be found at least at page 18, last paragraph of the specification. Applicant respectfully submits that Ozawa does not teach or suggest the claimed charging to a sum of an operating voltage of the capacitor and a nominal voltage of the secondary battery.

Claims 10-16 should be allowable at least due to their dependencies on claim 1 and additionally recited elements therein.

5. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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